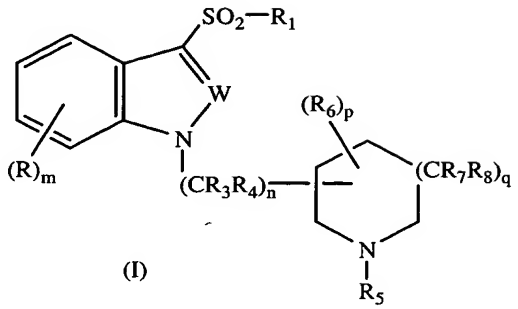
What is claimed is:

1. A compound of formula I



(I)

wherein

W is N or CR_2;

R is halogen, CN, OCO_2R_9, CO_2R_{10}, $CONR_{11}R_{12}$, SO_xR_{13}, $NR_{14}R_{15}$, OR_{16}, COR_{17} or a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_7cycloalkyl, aryl or heteroaryl group each optionally substituted;

R_1 is an optionally substituted C_1-C_6alkyl, C_3-C_7cycloalkyl, aryl, or heteroaryl group or an optionally substituted 8- to 13-membered bicyclic or tricyclic ring system having a N atom at the bridgehead and optionally containing 1, 2 or 3 additional heteroatoms selected from N, O or S;

R_2 is H, halogen, or a C_1-C_6alkyl, C_1-C_6alkoxy, C_3-C_7cycloalkyl, aryl or heteroaryl group each optionally substituted;

R_3 and R_4 are each independently H or an optionally substituted C_1-C_6alkyl group;

R_5 is H or a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_7cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

R_6 is a C_1-C_6alkyl, C_3-C_7cycloalkyl, C_2-C_6alkenyl or C_2-C_6alkynyl group each optionally substituted;

R_7 and R_8 are each independently H or a C_1-C_6alkyl, C_3-C_7cycloalkyl, C_2-C_6alkenyl or C_2-C_6alkynyl group each optionally substituted;

m, n and p are each independently 0 or an integer of 1, 2 or 3;

q and x are each independently 0 or an integer of 1 or 2;

R_9, R_{10}, R_{13} and R_{17} are each independently H or a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_6cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

R_{11} and R_{12} are each independently H or an optionally C_1-C_6alkyl group or R_{11} and R_{12} may be taken together with the atom to which they are attached to form a 5- to 7-member ring optionally containing another heteroatom selected from O, N or S;

R_{14} and R_{15} are each independently H or an optionally substituted C_1-C_4alkyl group or R_{14} and R_{15} may be taken together with the atom to which they are attached to form a 5- to 7-membered ring optionally containing another heteroatom selected from O, NR_{18} or SO_x;

R_{16} is a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_7cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted; and

R_{18} is H or a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_7cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted; or

the stereoisomers thereof or the pharmaceutically acceptable salts thereof.

2. The compound according to claim 1 wherein n is 0.

3. The compound according to claim 1 wherein R_5 is H.

4. The compound according to claim 1 wherein R_1 is an optionally substituted phenyl group.

5. The compound according to claim 2 wherein q is 0 or 1.

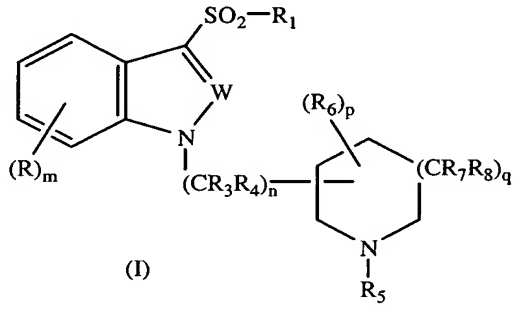
6. The compound according to claim 2 wherein m is 0 and p is 0.

7. The compound according to claim 5 wherein the piperidinyl or pyrrolidinyl group is attached in the 3-position.

8. The compound according to claim 6 wherein R_1 is an optionally substituted phenyl group and q is 0 or 1.

9. The compound according to claim 7 wherein W is N.

10. A method for the treatment of a central nervous system disorder related to or affected by the 5-HT6 receptor in a patient in need thereof which comprises providing to said patient a therapeutically effective amount of a compound of formula I



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R_1 is an optionally substituted C_1-C_6alkyl, C_3-C_7cycloalkyl, aryl, or heteroaryl group or an optionally substituted 8- to 13-membered bicyclic or tricyclic ring system having a N atom at the bridgehead and optionally containing 1, 2 or 3 additional heteroatoms selected from N, O or S;

R_2 is H, halogen, or a C_1-C_6alkyl, C_1-C_6alkoxy, C_3-C_7cycloalkyl, aryl or heteroaryl group each optionally substituted;

R_3 and R_4 are each independently H or an optionally substituted C_1-C_6alkyl group;

R_5 is H or a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_7cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

R_6 is a C_1-C_6alkyl, C_3-C_7cycloalkyl, C_2-C_6alkenyl or C_2-C_6alkynyl group each optionally substituted;

R_7 and R_8 are each independently H or a C_1-C_6alkyl, C_3-C_7cycloalkyl, C_2-C_6alkenyl or C_2-C_6alkynyl group each optionally substituted;

m, n and p are each independently 0 or an integer of 1, 2 or 3;

q and x are each independently 0 or an integer of 1 or 2;

R_9, R_{10}, R_{13} and R_{17} are each independently H or a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_6cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

R_{11} and R_{12} are each independently H or an optionally C_1-C_6alkyl group or R_{11} and R_{12} may be taken together with the atom to which they are attached to form a 5- to 7-member ring optionally containing another heteroatom selected from O, N or S;

R_{14} and R_{15} are each independently H or an optionally substituted C_1-C_4alkyl group or R_{14} and R_{15} may be taken together with the atom to which they are attached to form a 5- to 7-membered ring optionally containing another heteroatom selected from O, NR_{18} or SO_x;

R_{16} is a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_7cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted; and

R_{18} is H or a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_7cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted; or

the stereoisomers thereof or the pharmaceutically acceptable salts thereof.

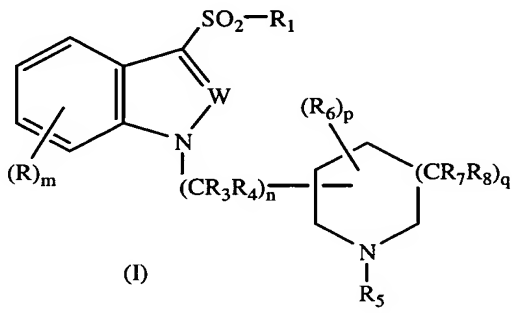
11. The method according to claim 10 wherein said disorder is a motor disorder, anxiety disorder or cognitive disorder.

12. The method according to claim 10 wherein said disorder is a neurodegenerative disorder.

13. The method according to claim 11 wherein said disorder is attention deficit disorder or obsessive compulsive disorder.

14. The method according to claim 12 wherein said disorder is stroke or head trauma.

15. A pharmaceutical composition which comprises a pharmaceutically acceptable carrier and an effective amount of a compound of formula I



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R_1 is an optionally substituted C_1-C_6alkyl, C_3-C_7cycloalkyl, aryl, or heteroaryl group or an optionally substituted 8- to 13-membered bicyclic or tricyclic ring system having a N atom at the bridgehead and optionally containing 1, 2 or 3 additional heteroatoms selected from N, O or S;

R_2 is H, halogen, or a C_1-C_6alkyl, C_1-C_6alkoxy, C_3-C_7cycloalkyl, aryl or heteroaryl group each optionally substituted;

R_3 and R_4 are each independently H or an optionally substituted C_1-C_6alkyl group;

R_5 is H or a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_7cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

R_6 is a C_1-C_6alkyl, C_3-C_7cycloalkyl, C_2-C_6alkenyl or C_2-C_6alkynyl group each optionally substituted;

R_7 and R_8 are each independently H or a C_1-C_6alkyl, C_3-C_7cycloalkyl, C_2-C_6alkenyl or C_2-C_6alkynyl group each optionally substituted;

m, n and p are each independently 0 or an integer of 1, 2 or 3;

q and x are each independently 0 or an integer of 1 or 2;

R_9, R_{10}, R_{13} and R_{17} are each independently H or a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_6cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

R_{11} and R_{12} are each independently H or an optionally C_1-C_6alkyl group or R_{11} and R_{12} may be taken together with the atom to which they are attached to form a 5- to 7-member ring optionally containing another heteroatom selected from O, N or S;

R_{14} and R_{15} are each independently H or an optionally substituted C_1-C_4alkyl group or R_{14} and R_{15} may be taken together with the atom to which they are attached to form a 5- to 7-membered ring optionally containing another heteroatom selected from O, NR_{18} or SO_x;

R_{16} is a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_7cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted; and

R_{18} is H or a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_7cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted; or

the stereoisomers thereof or the pharmaceutically acceptable salts thereof.

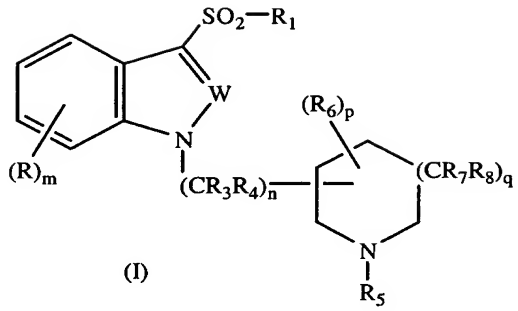
16. The composition according to claim 15 having a formula I compound wherein n is 0.

17. The composition according to claim 16 having a formula I compound wherein R_5 is H and q is 0 or 1.

18. The composition according to claim 17 having a formula I compound wherein R_1 is an optionally substituted phenyl group.

19. The composition according to claim 18 having a formula I compound wherein the piperidinyl or pyrrolidinyl group is attached in the 3-position.

20. A process for the preparation of a compound of formula I



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wherein

W is N or CR_2;

R is halogen, CN, OCO_2R_9, CO_2R_{10}, $CONR_{11}R_{12}$, SO_xR_{13}, $NR_{14}R_{15}$, OR_{16}, COR_{17} or a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_7cycloalkyl, aryl or heteroaryl group each optionally substituted;

R_1 is an optionally substituted C_1-C_6alkyl, C_3-C_7cycloalkyl, aryl, or heteroaryl group or an optionally substituted 8- to 13-membered bicyclic or tricyclic ring system having a N atom at the bridgehead and optionally containing 1, 2 or 3 additional heteroatoms selected from N, O or S;

R_2 is H, halogen, or a C_1-C_6alkyl, C_1-C_6alkoxy, C_3-C_7cycloalkyl, aryl or heteroaryl group each optionally substituted;

R_3 and R_4 are each independently H or an optionally substituted C_1-C_6alkyl group;

R_5 is H or a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_7cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

R_6 is a C_1-C_6alkyl, C_3-C_7cycloalkyl, C_2-C_6alkenyl or C_2-C_6alkynyl group each optionally substituted;

R_7 and R_8 are each independently H or a C_1-C_6alkyl, C_3-C_7cycloalkyl, C_2-C_6alkenyl or C_2-C_6alkynyl group each optionally substituted;

m, n and p are each independently 0 or an integer of 1, 2 or 3;

q and x are each independently 0 or an integer of 1 or 2;

R_9, R_{10}, R_{13} and R_{17} are each independently H or a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_6cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

R_{11} and R_{12} are each independently H or an optionally C_1-C_6alkyl group or R_{11} and R_{12} may be taken together with the atom to which they are

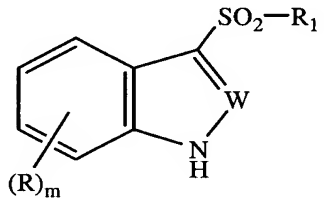
attached to form a 5- to 7-member ring optionally containing another heteroatom selected from O, N or S;

R_{14} and R_{15} are each independently H or an optionally substituted C_1-C_4alkyl group or R_{14} and R_{15} may be taken together with the atom to which they are attached to form a 5- to 7-membered ring optionally containing another heteroatom selected from O, NR_{18} or SO_x;

R_{16} is a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_7cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted; and

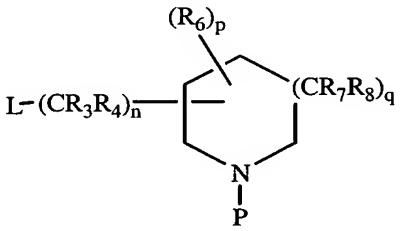
R_{18} is H or a C_1-C_6alkyl, C_2-C_6alkenyl, C_2-C_6alkynyl, C_3-C_7cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted

which process comprises reacting a compound of formula VIII



(VIII)

wherein W, R, R_1 and m are as described hereinabove with a protected azacyclic compound of formula IX



(IX)

wherein P is a protecting group; L is a leaving group; and R_3, R_4, R_6, R_7, R_8, n, p and q are as described hereinabove in the presence of a first base to give the protected

formula I compound; and deprotecting said compound to give the free amine of formula I wherein R_5 is H optionally alkylating said amine with an alkylating agent, R_5-L´, wherein L´ is a leaving group in the presence of a second base.